Figure 1

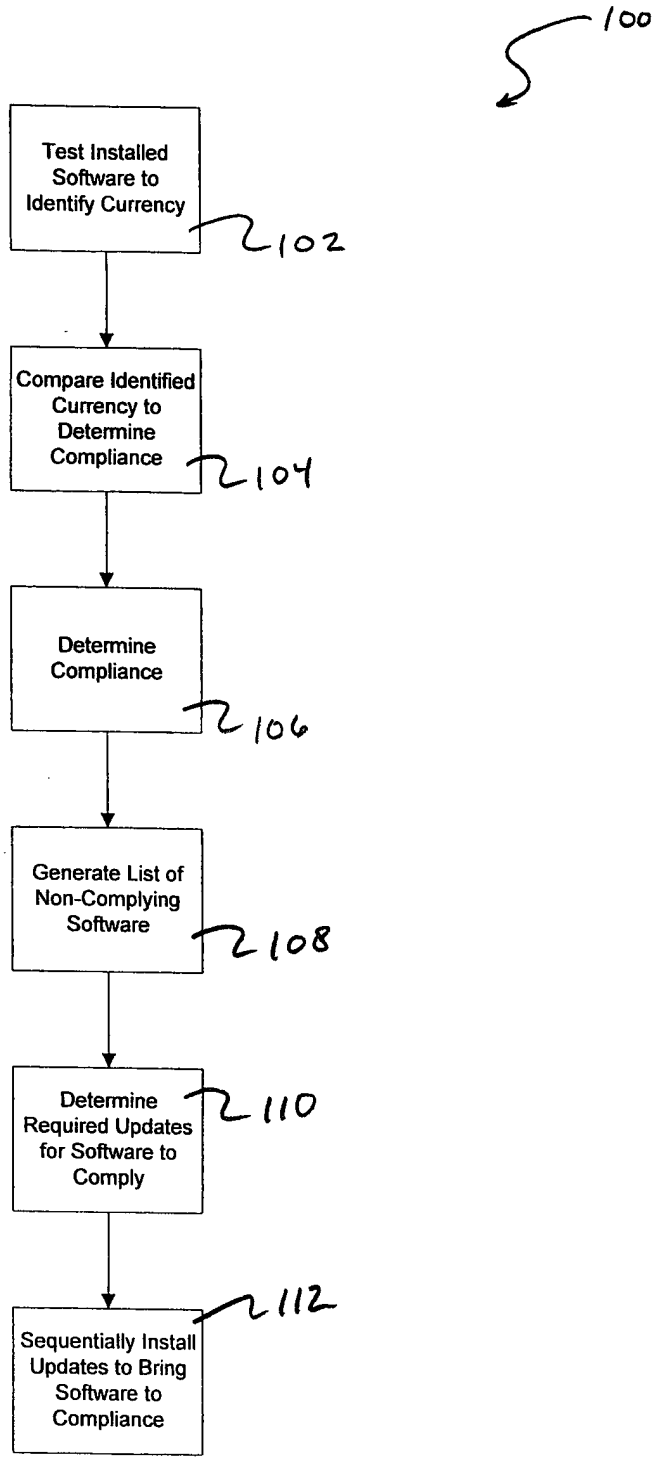

100
Test Installed Software to Identify Currency
102
Compare Identified Currency to Determine Compliance
104
Determine Compliance
106
Generate List of Non-Complying Software
108
Determine Required Updates for Software to Comply
110
Sequentially Install Updates to Bring Software to Compliance
112

Figure 2

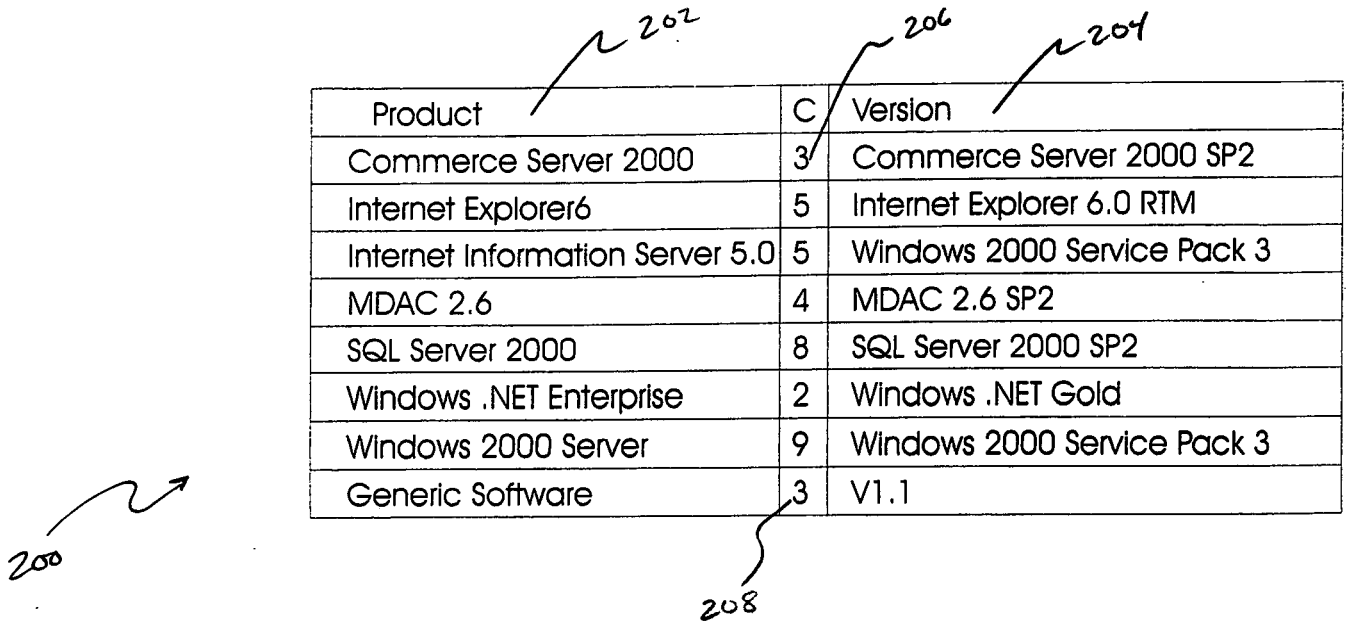

202
206
204
Product
C
Version
Commerce Server 2000
3
Commerce Server 2000 SP2
Internet Explorer6
5
Internet Explorer 6.0 RTM
Internet Information Server 5.0
5
Windows 2000 Service Pack 3
MDAC 2.6
4
MDAC 2.6 SP2
SQL Server 2000
8
SQL Server 2000 SP2
Windows .NET Enterprise
2
Windows .NET Gold
Windows 2000 Server
9
Windows 2000 Service Pack 3
Generic Software
3
V1.1
200
208

Figure 3

Product	C	Version
Commerce Server 2000	3	Commerce Server 2000 SP2
Internet Explorer6	5	Internet Explorer 6.0 RTM
Internet Information Server 5.0	5	Windows 2000 Service Pack 3
MDAC 2.6	4	MDAC 2.6 SP2
SQL Server 2000	8	SQL Server 2000 SP2
Windows .NET Enterprise	2	Windows .NET Gold
Windows 2000 Server	9	Windows 2000 Service Pack 3
Generic Software	6	V2.0 SP1

FIGURE 4

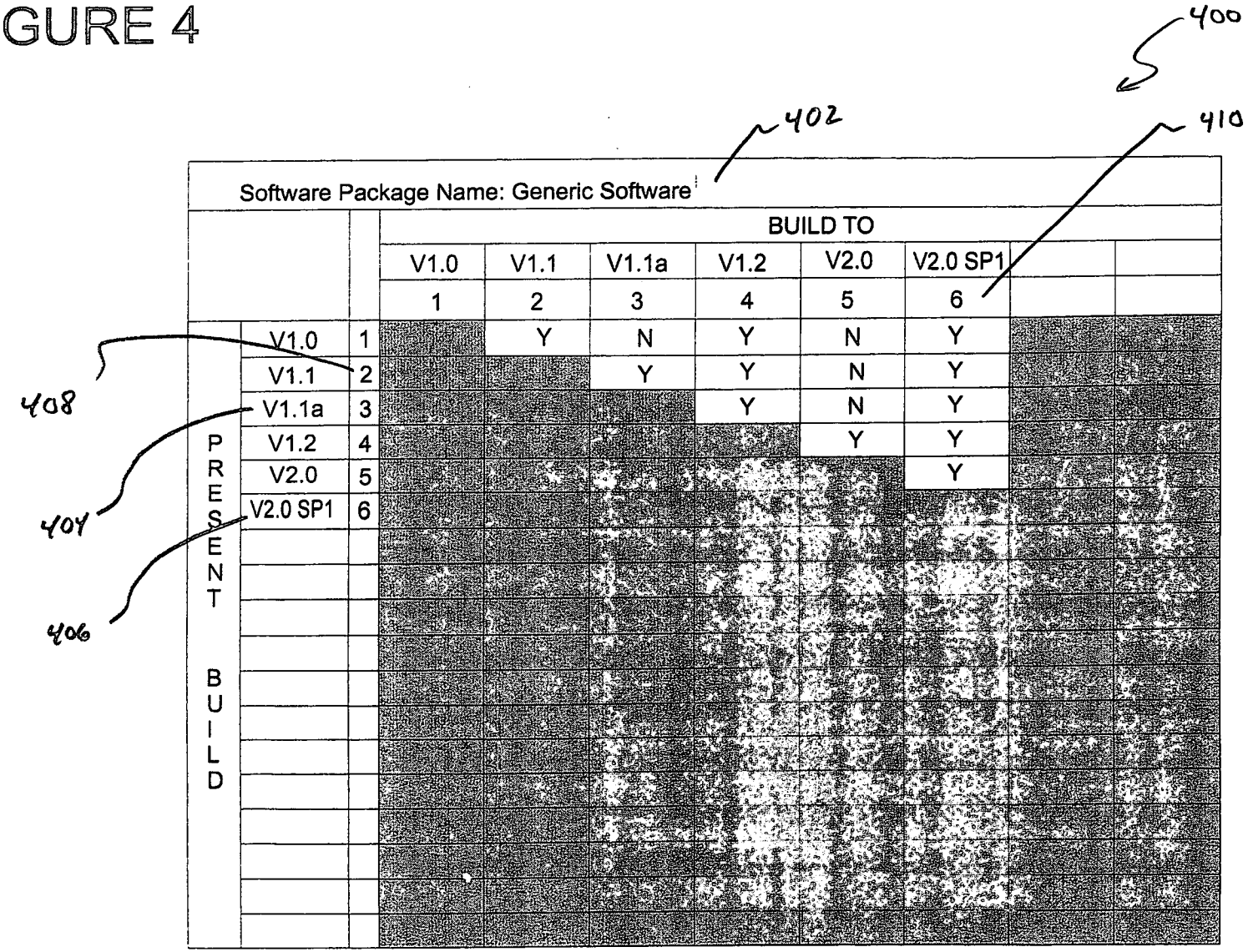

400
402
410
408
404
406
Software Package Name: Generic Software
BUILD TO
V1.0
V1.1
V1.1a
V1.2
V2.0
V2.0 SP1
1
2
3
4
5
6
PRESENT BUILD
V1.0 1
V1.1 2
V1.1a 3
V1.2 4
V2.0 5
V2.0 SP1 6
Y N Y N Y
Y Y N Y
Y N Y
Y Y
Y

FIGURE 5

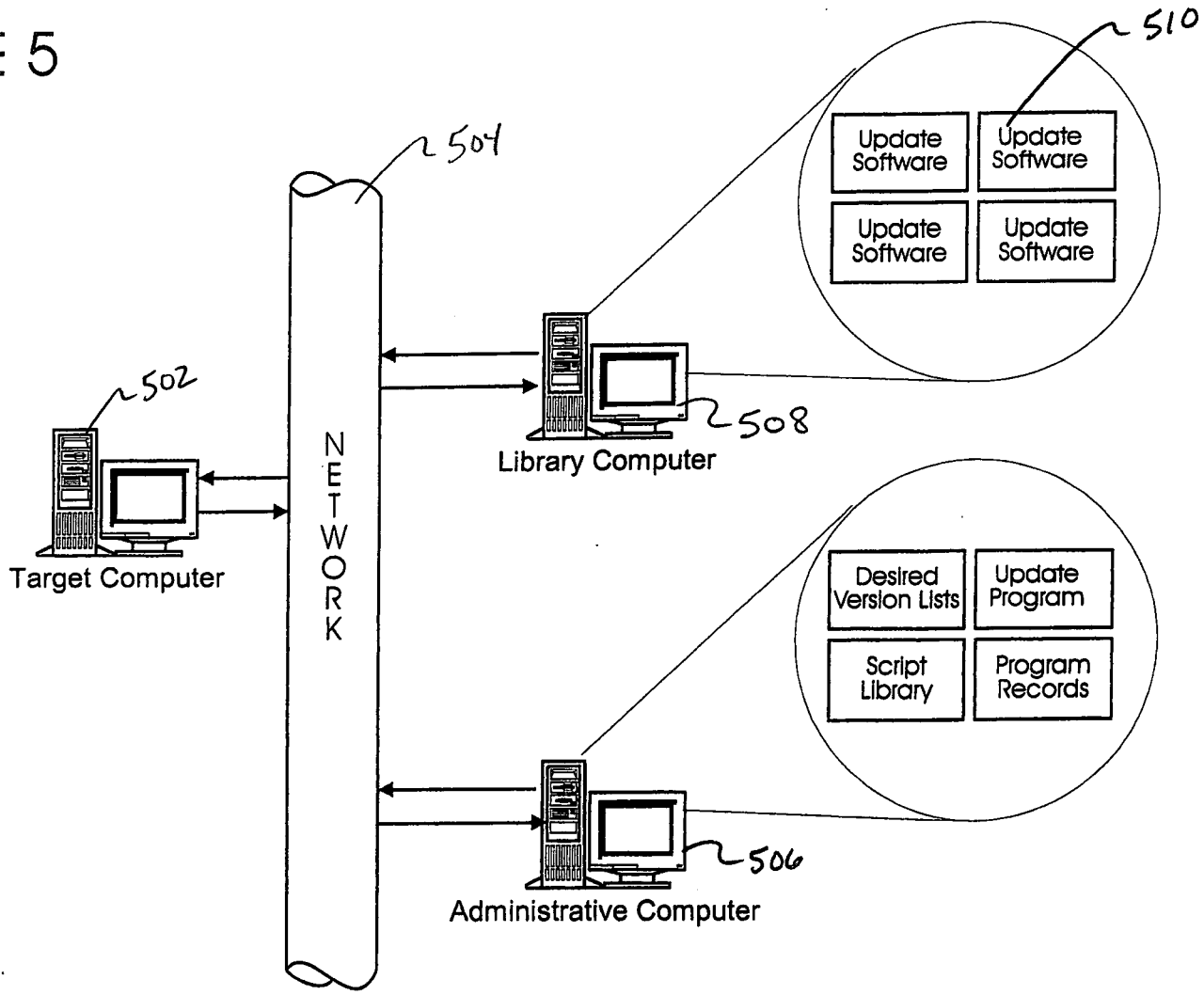

510
Update Software
Update Software
Update Software
Update Software
504
502
NETWORK
508
Library Computer
Target Computer
Desired Version Lists
Update Program
Script Library
Program Records
506
Administrative Computer

Figure 6A

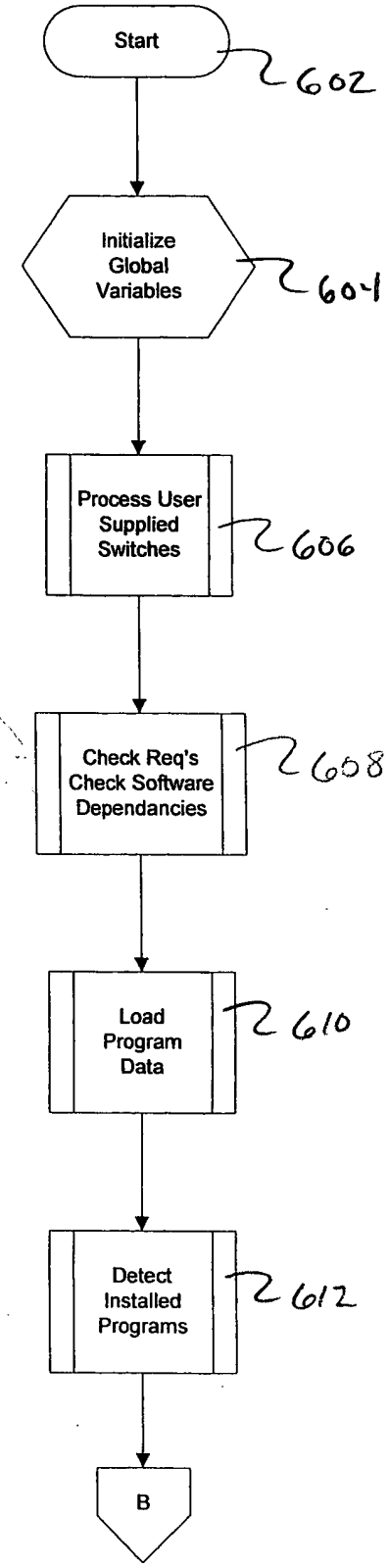

Start
602
Initialize Global Variables
604
Process User Supplied Switches
606
Check Req's Check Software Dependancies
608
Load Program Data
610
Detect Installed Programs
612
B

Figure 6B

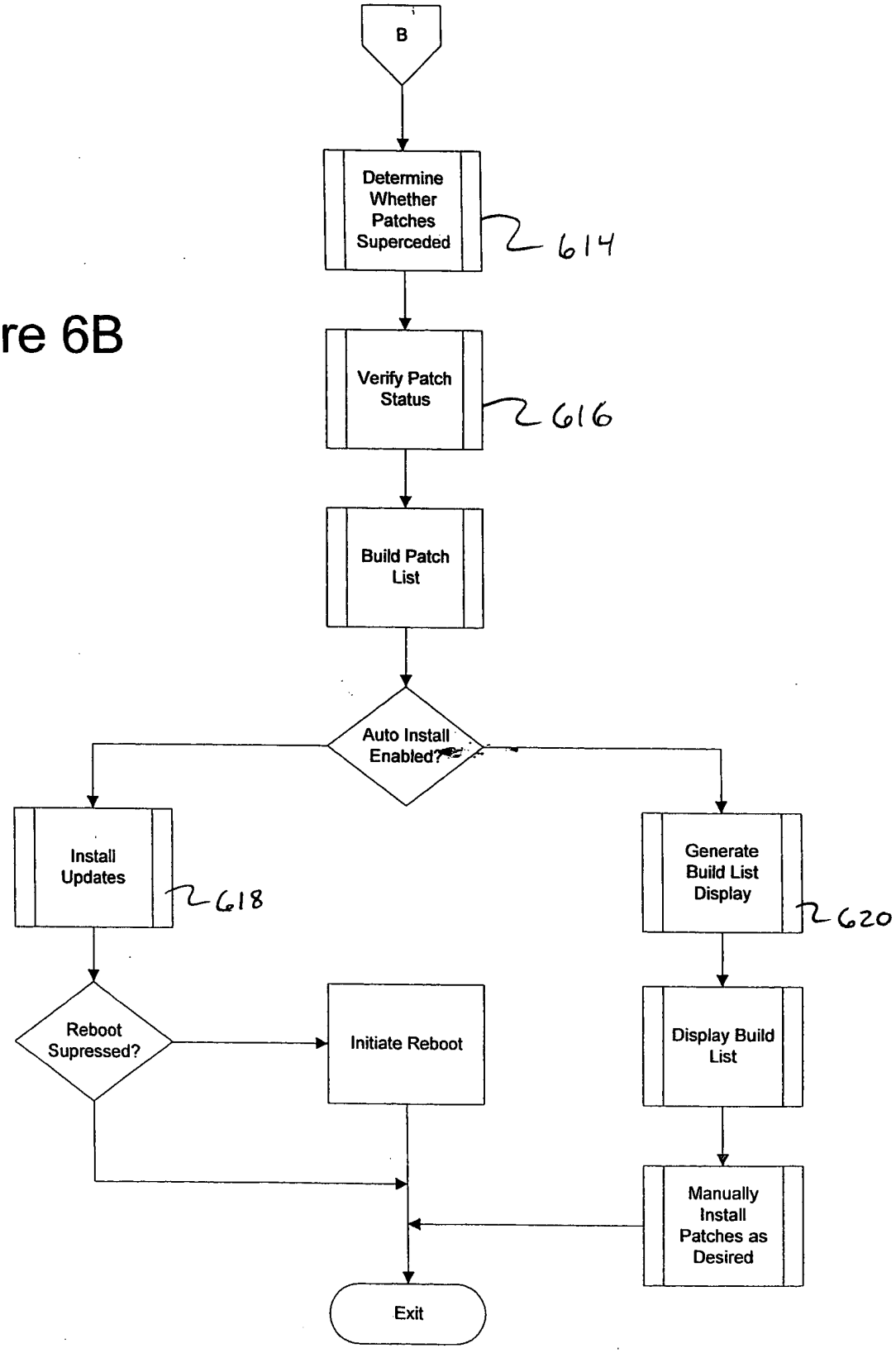

B
Determine Whether Patches Superceded
614
Verify Patch Status
616
Build Patch List
Auto Install Enabled?
Install Updates
618
Generate Build List Display
620
Reboot Supressed?
Initiate Reboot
Display Build List
Manually Install Patches as Desired
Exit

Figure 7

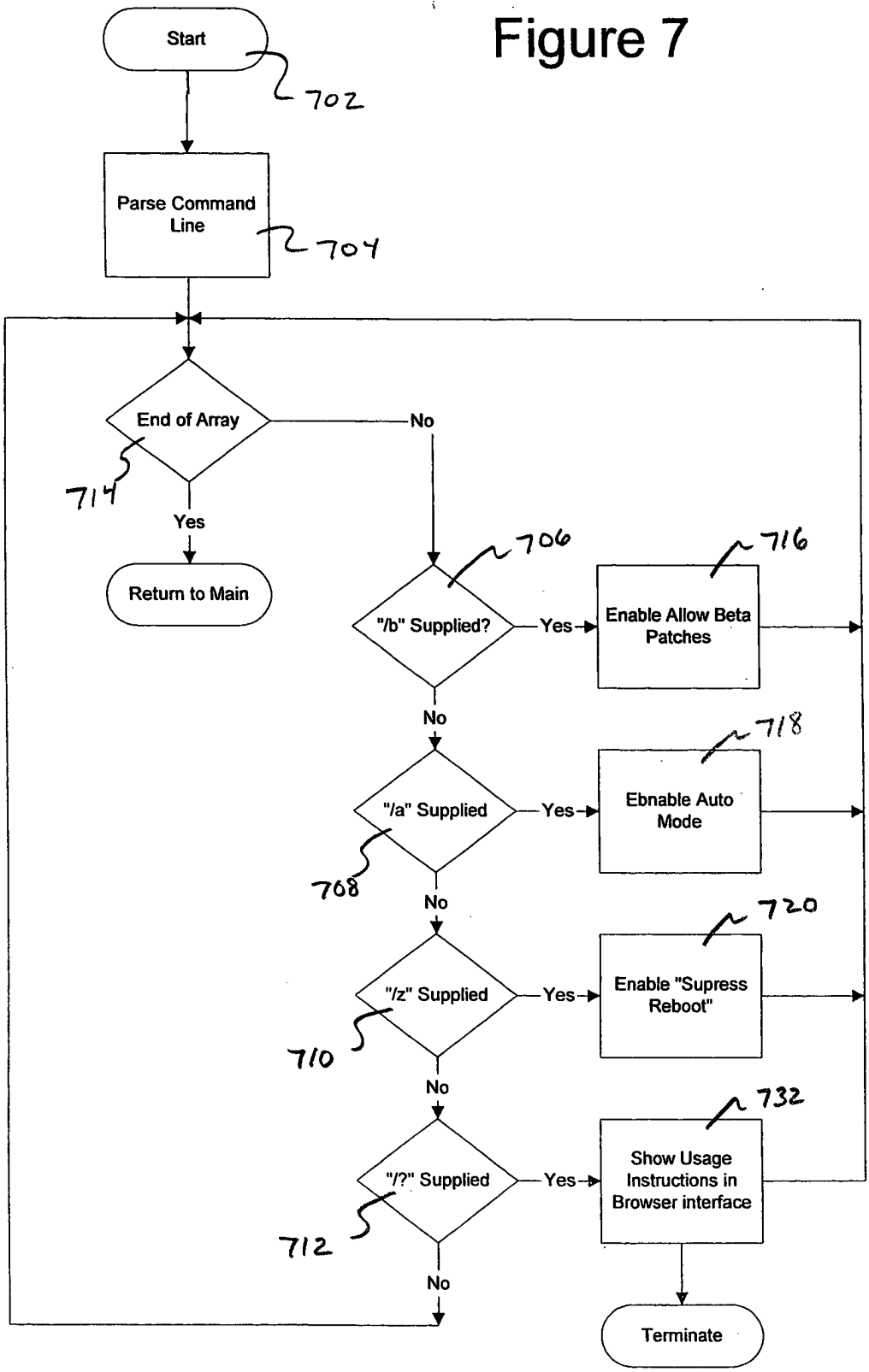

Start
702
Parse Command Line
704
End of Array
714
No
Yes
Return to Main
706
"/b" Supplied?
Yes
716
Enable Allow Beta Patches
No
"/a" Supplied
Yes
718
Ebnable Auto Mode
708
No
"/z" Supplied
Yes
720
Enable "Supress Reboot"
710
No
"/?" Supplied
Yes
732
Show Usage Instructions in Browser interface
712
No
Terminate

Figure 8

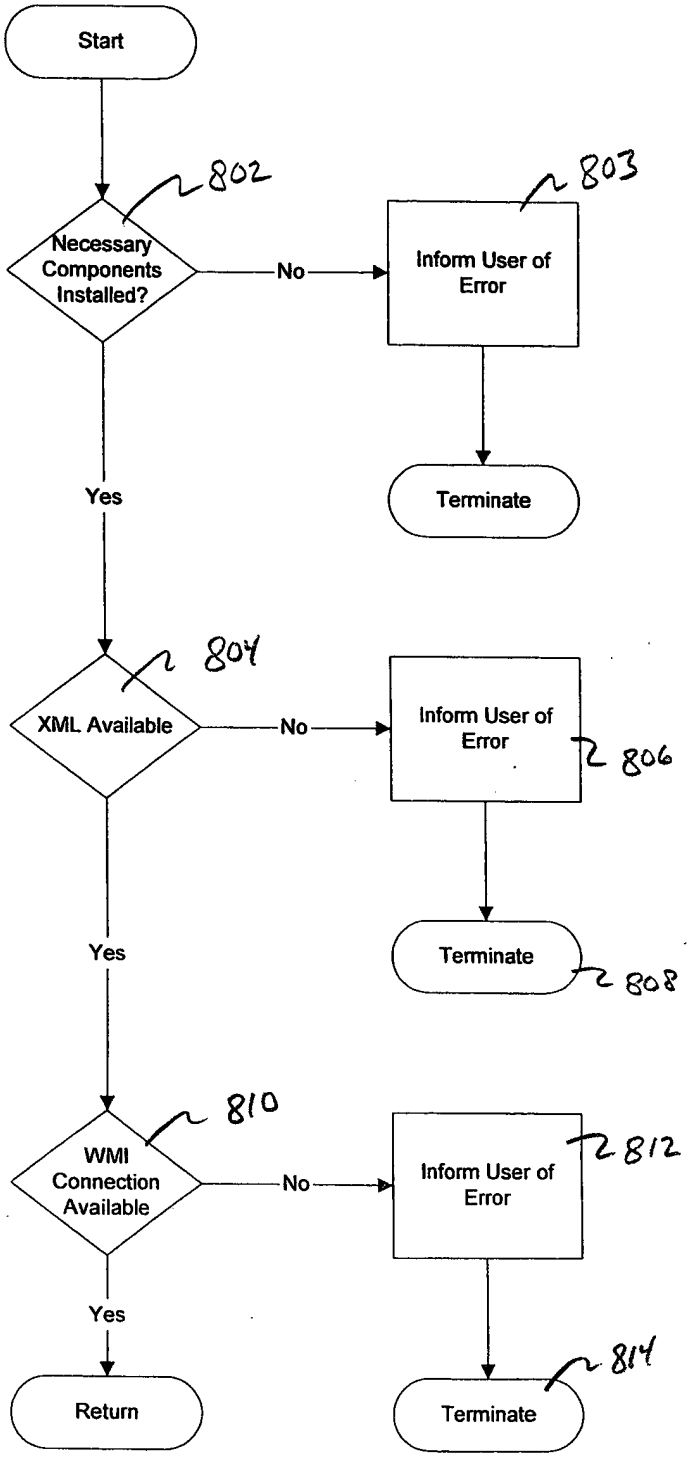
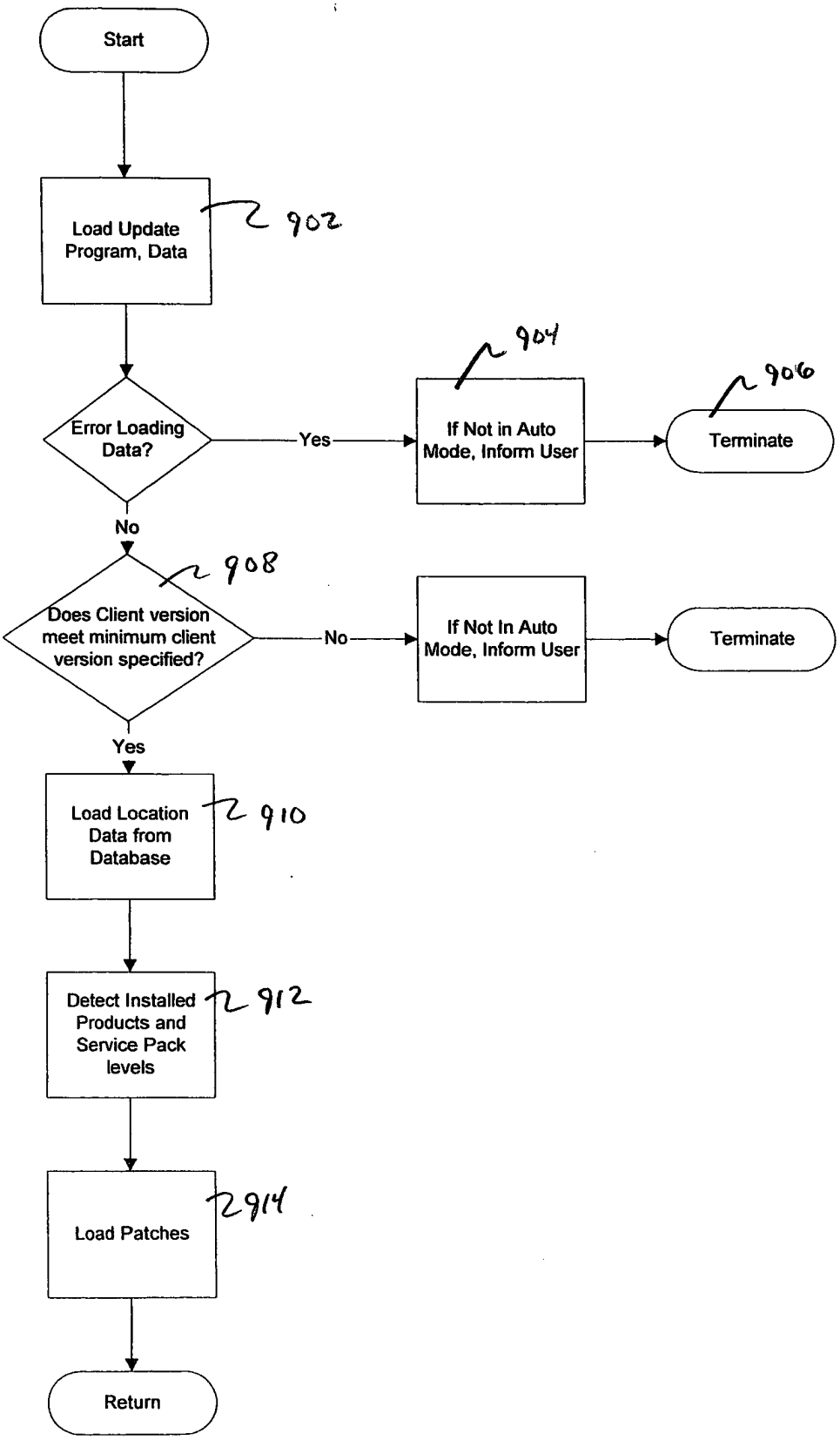

Start
802
Necessary Components Installed?
No
803
Inform User of Error
Terminate
Yes
804
XML Available
No
Inform User of Error
806
Terminate
808
Yes
810
WMI Connection Available
No
812
Inform User of Error
Yes
Return
814
Terminate

Figure 9


Start
Load Update Program, Data
902
Error Loading Data?
Yes
904
If Not in Auto Mode, Inform User
906
Terminate
No
Does Client version meet minimum client version specified?
908
No
If Not In Auto Mode, Inform User
Terminate
Yes
Load Location Data from Database
910
Detect Installed Products and Service Pack levels
912
Load Patches
914
Return

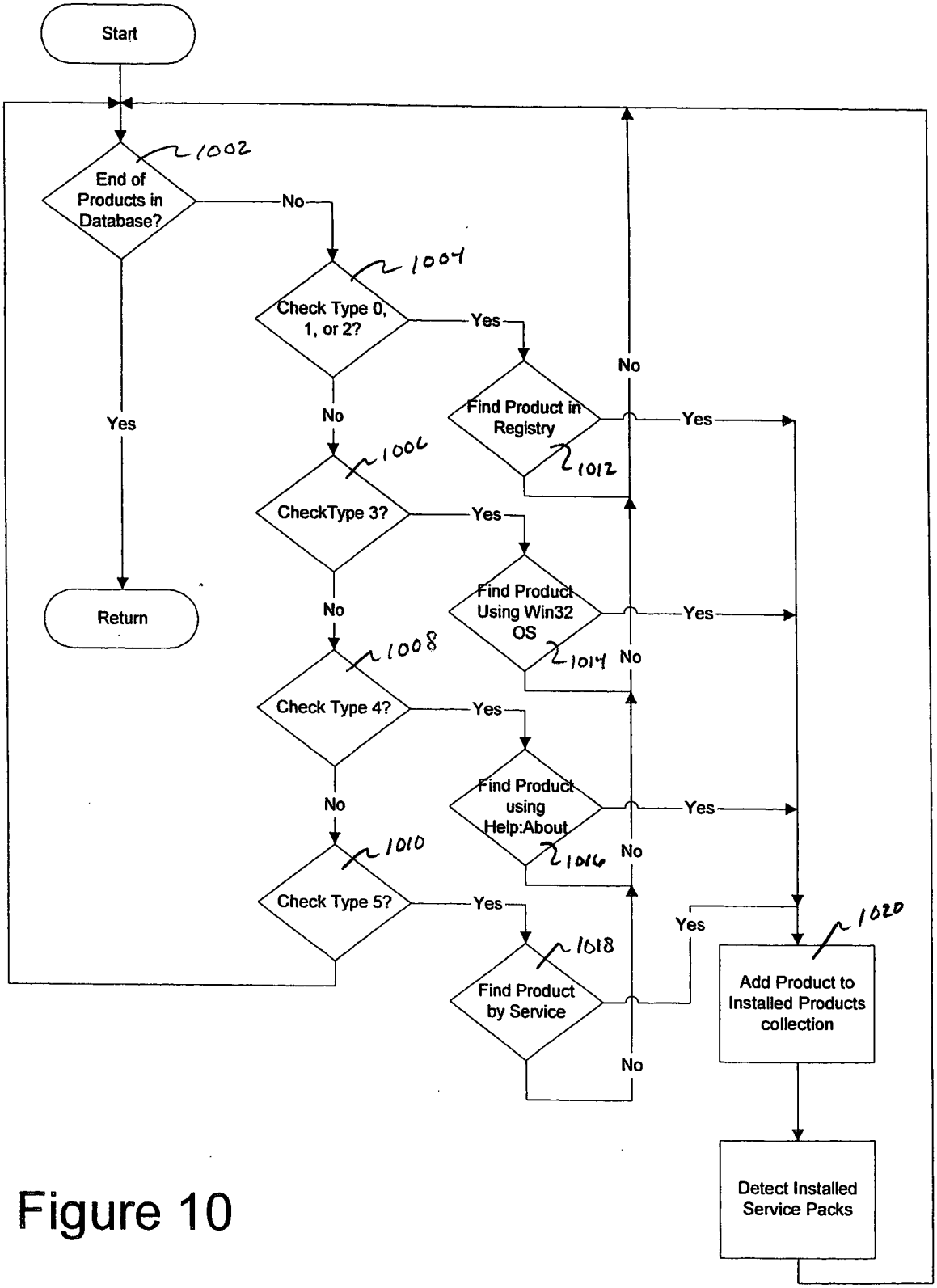

Start
End of Products in Database?
1002
No
Yes
Return
Check Type 0, 1, or 2?
1004
Yes
No
Find Product in Registry
1012
Yes
No
CheckType 3?
1006
Yes
No
Find Product Using Win32 OS
1014
Yes
No
Check Type 4?
1008
Yes
No
Find Product using Help:About
1016
Yes
No
Check Type 5?
1010
Yes
Find Product by Service
1018
Yes
No
Add Product to Installed Products collection
1020
Detect Installed Service Packs

Figure 10

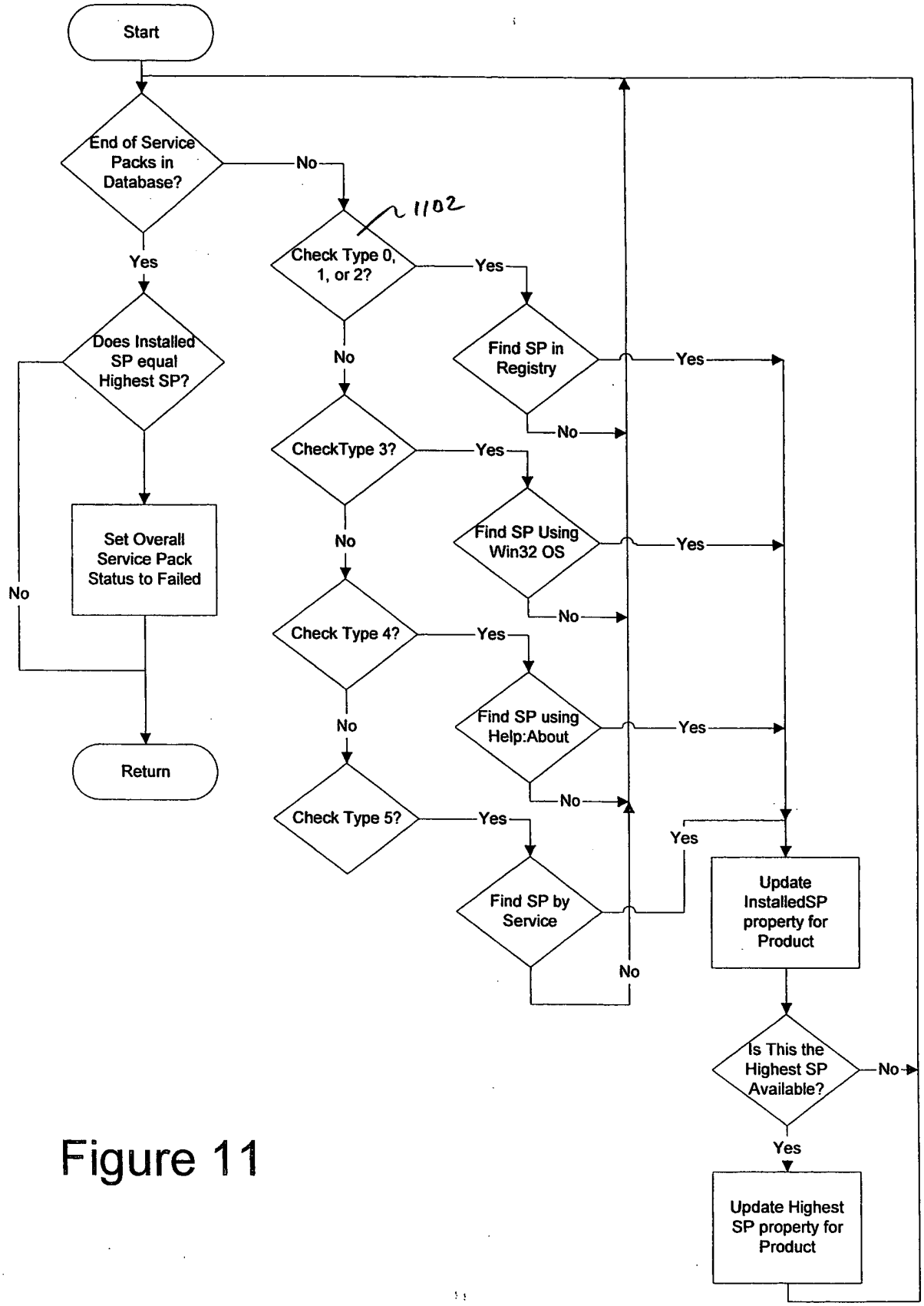

Start
End of Service Packs in Database?
No
Yes
1102
Check Type 0, 1, or 2?
Yes
No
Find SP in Registry
Yes
No
CheckType 3?
Yes
No
Find SP Using Win32 OS
Yes
No
Check Type 4?
Yes
No
Find SP using Help:About
Yes
No
Check Type 5?
Yes
No
Find SP by Service
Yes
No
Does Installed SP equal Highest SP?
Yes
No
Set Overall Service Pack Status to Failed
Return
Update InstalledSP property for Product
Is This the Highest SP Available?
No
Yes
Update Highest SP property for Product

Figure 11

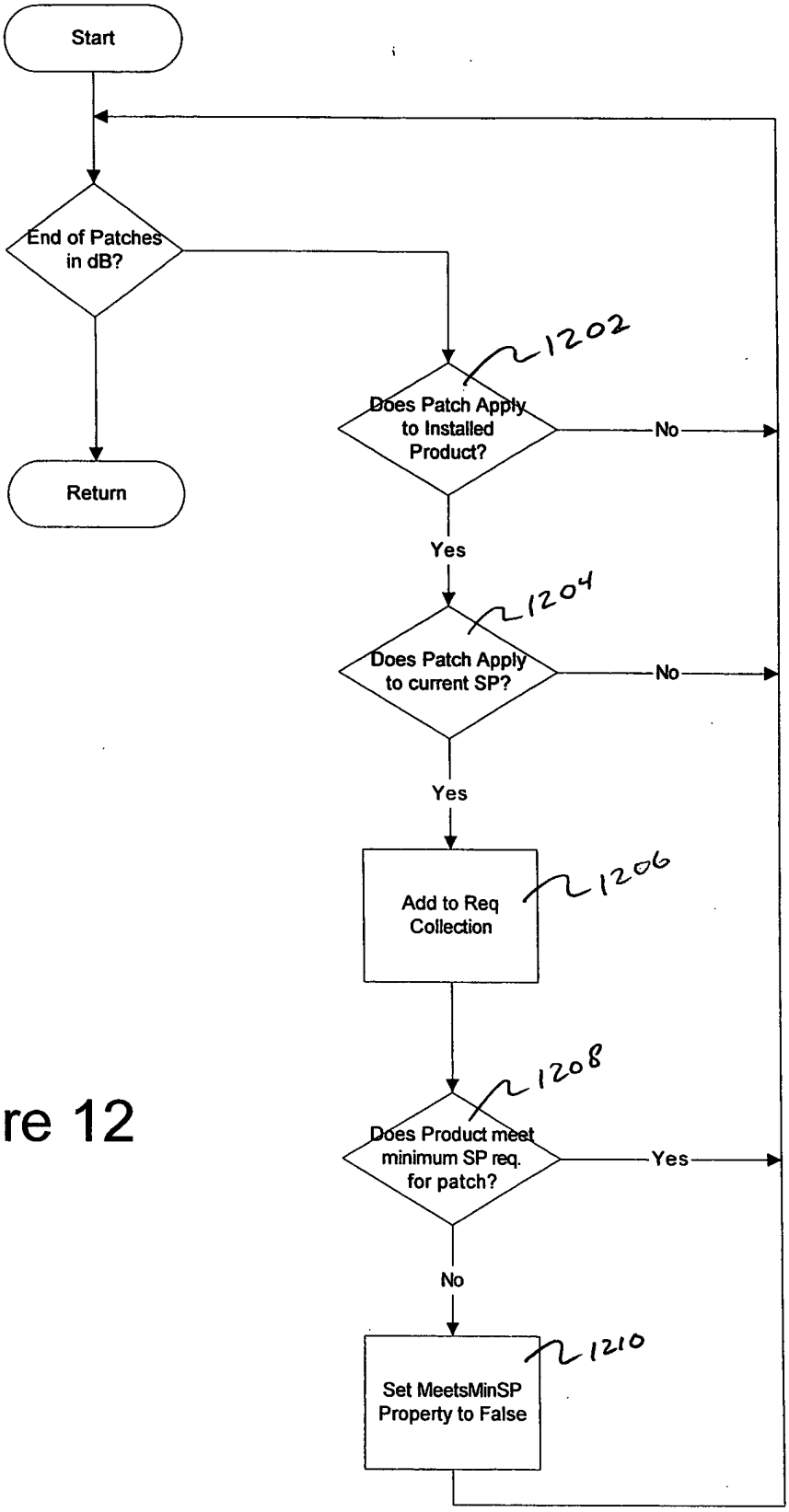
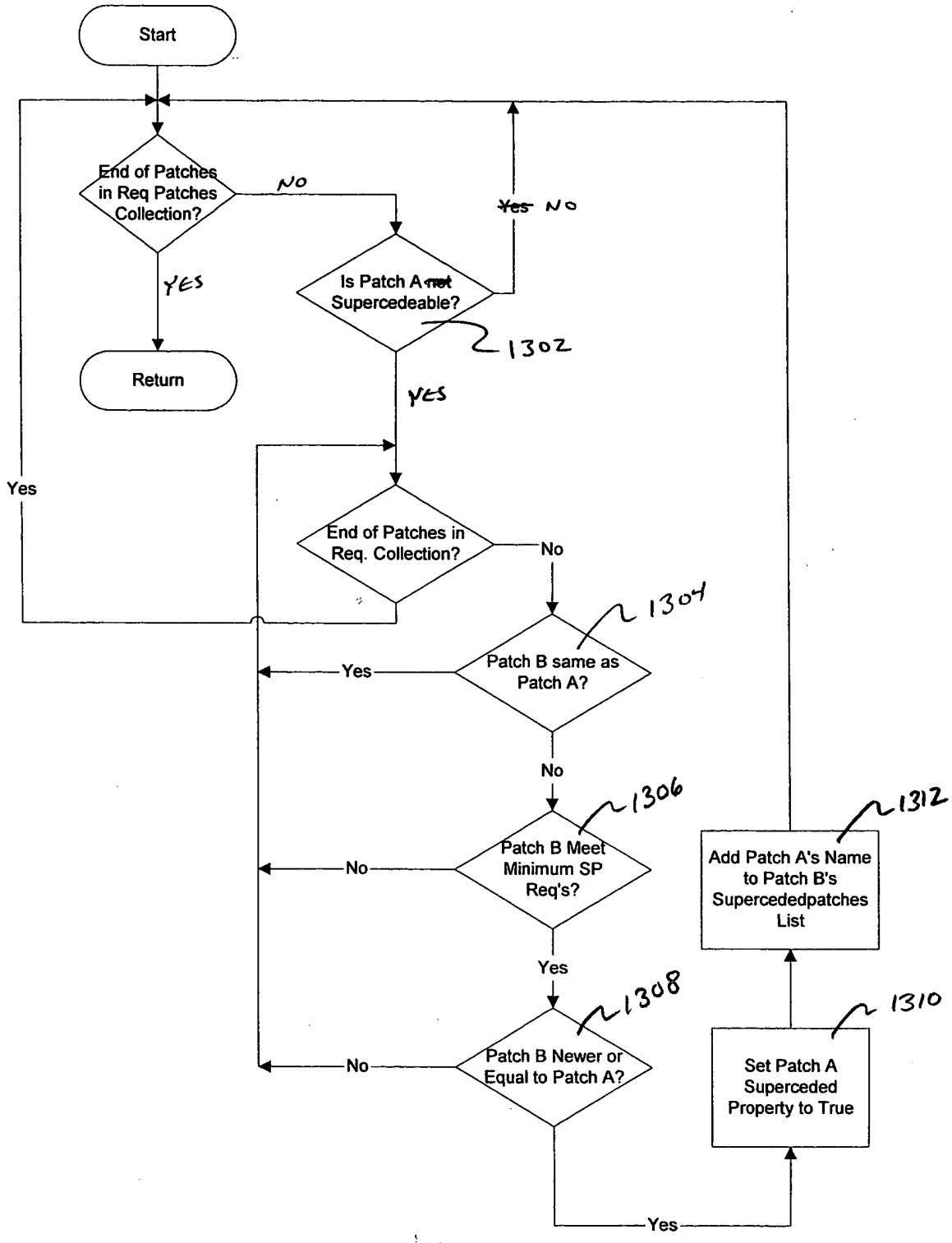

Start
End of Patches in dB?
Return
1202
Does Patch Apply to Installed Product?
No
Yes
1204
Does Patch Apply to current SP?
No
Yes
Add to Req Collection
1206
1208
Does Product meet minimum SP req. for patch?
Yes
No
Set MeetsMinSP Property to False
1210

Figure 12

Figure 13


Start
End of Patches in Req Patches Collection?
NO
YES
Return
Is Patch A ~~not~~ Supercedeable?
~~Yes~~ NO
1302
YES
Yes
End of Patches in Req. Collection?
No
1304
Patch B same as Patch A?
Yes
No
1306
Patch B Meet Minimum SP Req's?
No
Yes
1308
Patch B Newer or Equal to Patch A?
No
Yes
1310
Set Patch A Superceded Property to True
1312
Add Patch A's Name to Patch B's Supercededpatches List

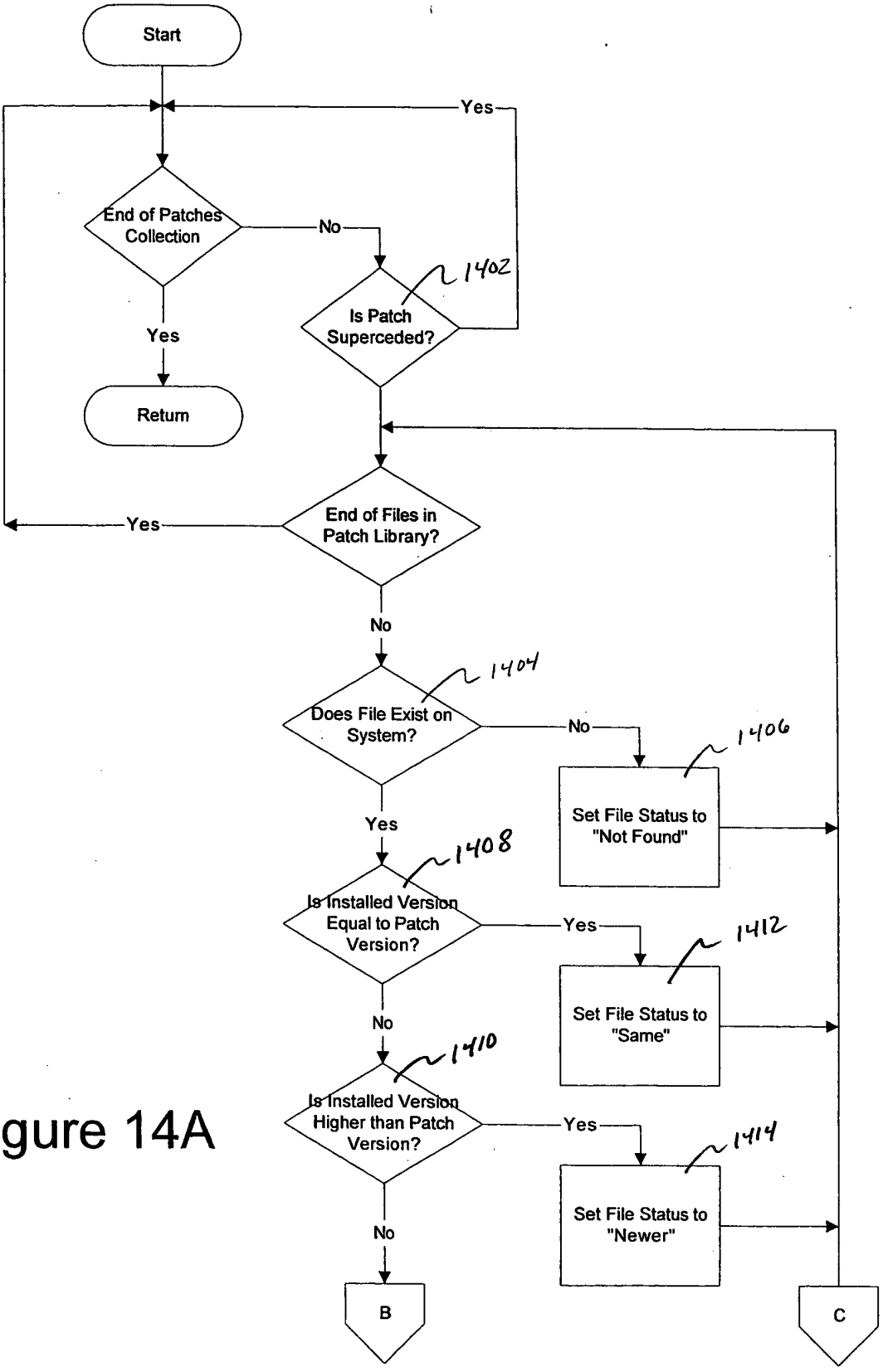

Start
End of Patches Collection
No
Yes
Yes
Is Patch Superceded?
1402
Return
End of Files in Patch Library?
Yes
No
Does File Exist on System?
1404
No
Set File Status to "Not Found"
1406
Yes
Is Installed Version Equal to Patch Version?
1408
Yes
Set File Status to "Same"
1412
No
Is Installed Version Higher than Patch Version?
1410
Yes
Set File Status to "Newer"
1414
No
B
C

Figure 14A

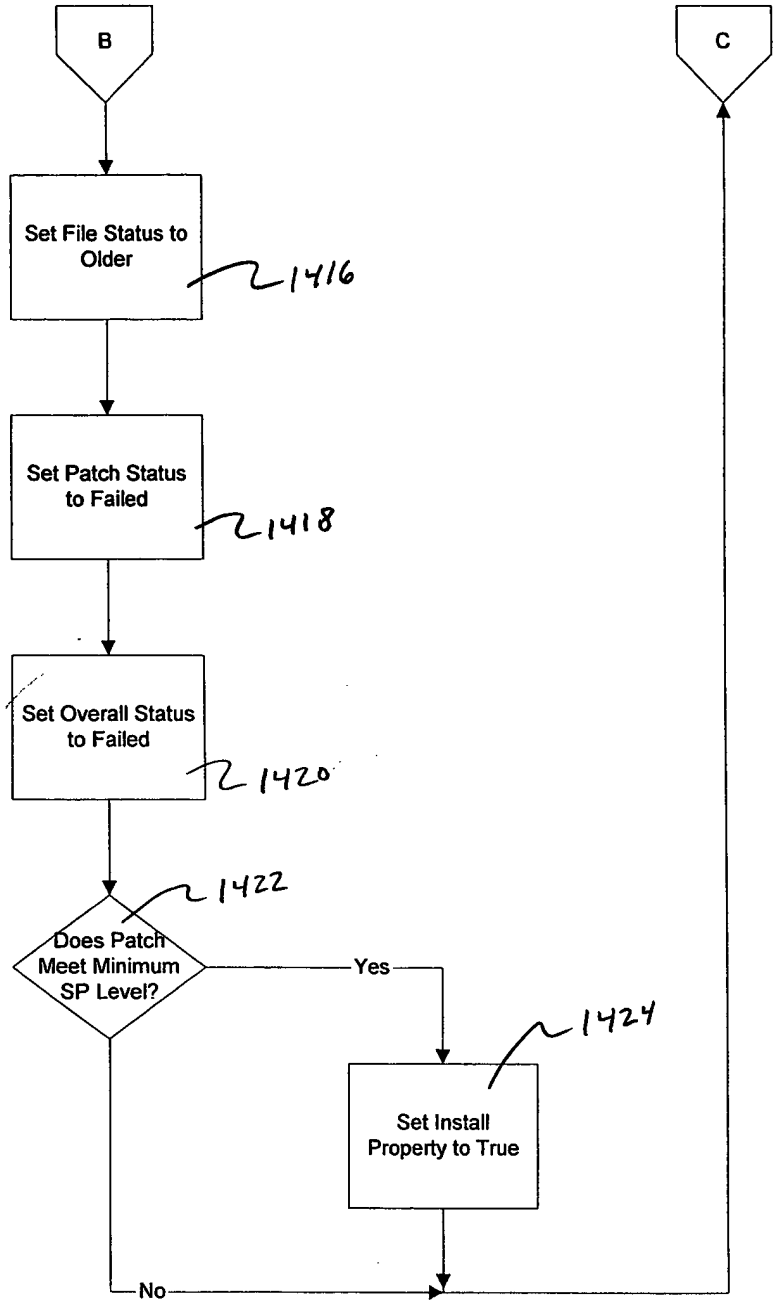
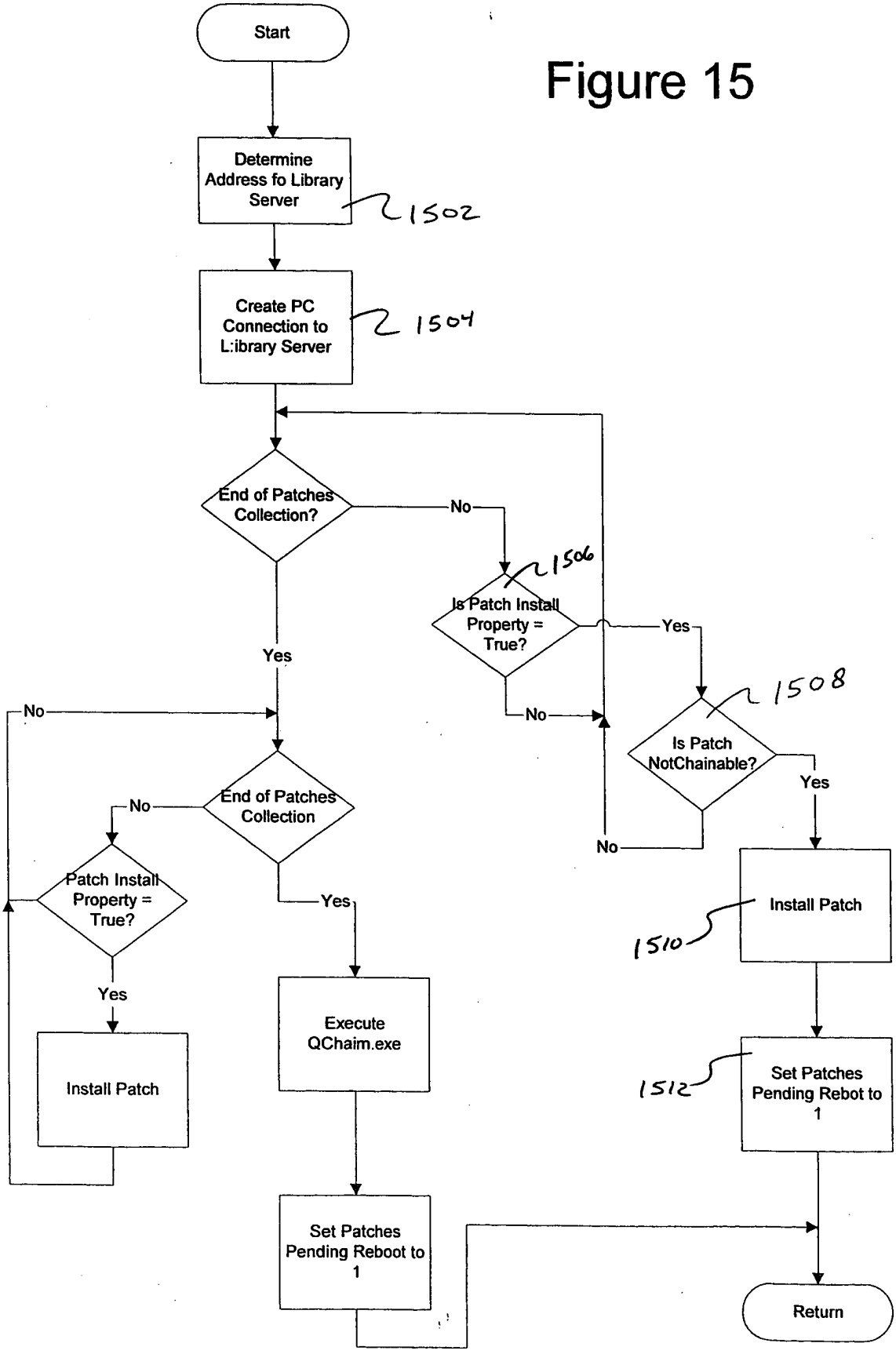

B
C
Set File Status to Older
1416
Set Patch Status to Failed
1418
Set Overall Status to Failed
1420
1422
Does Patch Meet Minimum SP Level?
Yes
1424
Set Install Property to True
No

Figure 14B

Figure 15


Start
Determine Address fo Library Server
1502
Create PC Connection to L:ibrary Server
1504
End of Patches Collection?
No
Yes
1506
Is Patch Install Property = True?
Yes
No
1508
Is Patch NotChainable?
Yes
No
Install Patch
1510
Set Patches Pending Rebot to 1
1512
No
End of Patches Collection
No
Yes
Patch Install Property = True?
Yes
Install Patch
Execute QChaim.exe
Set Patches Pending Reboot to 1
Return